PROPOSED TOWNHOUSE EXTENSION **ADDRESS: 31 GATEHOUSE DRIVE, KENSINGTON VIC 3031**

WORK		
LEVEL	WORKS DESCRIPTION	SHEET NO:
1	DEMOLITION OF EX. POWDER CUM LAUNDRY RM INCLUDING 2 LOAD BEARING WALLS & SUBSTITUTING WITH 2 BEAMS TO PROVIDE ENHANCED SPACE TO EX. LIVING & DINING AREA.	5 OF 18
1	DEMOLITION OF EX. KITCHEN EXTERNAL WALL INCLUDING DOOR & WINDOWS AND BUILDING A NEW EXTERNAL WALL ENCROACHING 1/2 WAY INTO EX. BALCONY TO PROVIDE ENHANCED AREA TO KITCHEN.	5 OF 18
1	DEMOLITION OF THE TIMBE FRAMED FLAT ROOF OVER EX. BALCONY.	5 & 7 OF 18
1	BUILDING A NEW BATHROOM, CONVERTING EX. LAUNDRY.	5 OF 18
1	DEMOLITION OF EX. KITCHEN BENCHES etc. TO BUILD A NEW, BIGGER & MODERN KITCHEN.	5 OF 18
1	BUILDING OF A NEW ELECTRIC FIRE PLACE (WHERE EX. POWDER CUM LAUNDRY RM WAS ON EXTERNAL WALL SIDE).	5 OF 18
1	RE-INSULATING & RE-PLASTERING OF ALL INTERNAL WALLS & CEILINGS.	5 OF 18
1	ALL ROUGH-INS FOR PLUMBING & ELECTRICAL WORKS	5 OF 18
1	ALL FLOOR COVERING IS REMOVED & DISPOSED.	5 OF 18

WORK	WORKS DONE TO DATE TO BE REVIEWED FOR COMPLIANCE 09/09/2021					
LEVEL	LEVEL WORKS DESCRIPTION					
2	CONVERTING AN EX. WALK-IN-ROBE OPPOSITE EX. BEDROOM 2 INTO A NEW ENSUITE.					
2	DEMOLITION OF 2 WINDOWS IN EX. BEDROOM 2, TO CREATE ENTRY DOORWAY INTO A PROPOSED BALCONY.	6 OF 18				
2	FRAMING & FLOORING FOR PROPOSED BALCONY.	15 & 16 OF 18				
2	REMOVING EX. DOOR INTO EX. BATH 2 OPPOSITE STAIRCASE AND RE-INSTALL IN BEDROOM 1 SIDE.					
2	INSTALLATION OF DOUBLE SOLID BRICK WALL VERTICAL EXTENSION OF FIRE SEPARATION WALL FRL 60/60/60.					
2	RE-INSULATING & RE-PLASTERING OF ALL INTERNAL WALLS & CEILINGS.	6 OF 18				
2	2 ALL ROUGH-INS FOR PLUMBING & ELECTRICAL WORKS.					
2	ALL FLOOR COVERING IS REMOVED & DISPOSED.	6 OF 18				

FULL SCOPE OF EXTENSION - PLAN SET CONTENTS				
	TITLE	SHEET NO		
COVER SHEET		1 OF 18		
GENERAL SPECIFICAT	2 OF 18			
LOCATION MAP & SIT	TE PLAN	3 OF 18		
EXISTING ARCHITECT	TURAL & DEMOLITION PLANS			
GROUND LEVEL EXIST	TING PLAN	4 OF 18		
LEVEL 1 - EXISTING &	DEMOLITION PLAN	5 OF 18		
LEVEL 2 - EXISTING &	DEMOLITION PLAN	6 OF 18		
EXISTING EAST ELEVA	ATION	7 OF 18		
EXISTING WEST ELEV	ATION	8 OF 18		
EXISTING SOUTH ELE	VATION	9 OF 18		
PROPOSED EXTENSION	ON			
PROPOSED WORKS L	EVEL 1	10 OF 18		
PROPOSED WORKS L	EVEL 2	11 OF 18		
ELEVATION - A - SHO	WING PROPOSED WORKS	12 OF 18		
PROPOSED SOUTH ELEVATION				
PROPOSED WORKS S	14 OF 18			
STRUCTURAL PLANS				
EX. STRUCTURAL FRA	ME - SECTION B - B	15 OF 18		
PROPOSED STRUCTU	RAL FRAME - SECTION B - B	16 OF 18		
PROPOSED STRUCTU	RAL WORKS PLAN - BALCONY LEVEL 2	17 OF 18		
ENERGY EFFICIENCY		18 OF 18		
EXTERNAL ACCESS T	O LEVEL 1			
STAIRCASE DESIGN		PAGE 19		
SITE COVERAGE - 31	GATEHOUSE DRIVE, KENSINGTON			
EXISTING				
ALLOTMENT AREA	208 sq. m.			
TOTAL FLOOR AREA	200.4 sq.m.			
PERVIOUS AREA	16.5 sq.m.			
PROPOSED				



WARNING

ALL SERVICES SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY AND EXACT LOCATION IS TO BE CONFIRMED ON SITE BY CONTRACTOR PRIOR TO COMMENCEMENT OF ANY WORKS.

CLIENT: MATT DECARNE & **STELLA WEST**

JOB NO: MD/SW/2021

WB CIVIL STRUCTURAL ENGINEERS

ABN: 84119322436

OFFICE: NO: 6, TENDULKAR DRIVE, ROCKBANK 3335 Mobile: 0401023328 / Ph: 03 9746 0089 Email: priyan@wbcse.com.au

CIVIL/STRUCTUAL ENGINEER BUSINESS LICENCING AUTHORITY

PRIYAN WIJEYERATNE PE 2448, F.I.E.(AUST)., C.P.ENG. M.Eng.(Str.), M.Tech.(Mgt.), B.Sc.(Civil) PROJECT: **EXTENSION**

PROJECT ADDRESS: 31 GATEHOUSE DRIVE, **KENSINGTON VIC 3031**

SHEET NO: 1/18

SCALE: AS SHOWN

VVII
CIVIL STRUCTURAL ENGINEERS

REV.	REMARKS/COMMENTS	DATE	APRV.

GENERAL SPECIFICATIONS

GENERAL

- G1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANT'S DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER OR ARCHITECT BEFORE PROCEEDING WITH THE WORK.
- G2. ALL DIMENSIONS ARE TO BE OBTAINED FROM THE ARCHITECT'S DRAWINGS OR FROM SITE. ENGINEER'S DRAWINGS MUST NOT BE SCALED.
- G3. DURING CONSTRUCTION THE BUILDER SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING NO PART SHALL BE OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES.
- G4. MATERIAL AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH THE RELEVANT SAA CODES, BCA/NCC REQUIREMENTS UNLESS OTHERWISE NOTED IN THE PROJECT SPECIFICATION
- G5. THE APPROVAL OF A SUBSTITUTION BY THE ENGINEER IS NOT AN AUTHORIZATION FOR AN EXTRA. ANY EXTRA INVOLVED MUST BE TAKEN UP WITH THE ARCHITECT BEFORE WORK COMMENCES.
- G6. THE STRUCTURAL WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED FOR THE FOLLOWING LIVE LOADS:-

AREA	LIVE LOAD			
AILEA				
GARAGE	2.5 kPa			
FLOOR	1.5 kPa			
ROOF	1.0 kPa – TILE ROOF 0.5 kPa – METAL ROOF			
BALCONY (IF APPLICABLE)	2.0 kPa			

- G7. FOUNDATION MATERIAL TO BE APPROVED BEFORE POURING CONCRETE FOR A SAFE BEARING CAPACITY OF: 50kPa.WAFFLE SLAB

 100kPa....STRIP FOOTING
- G8. ALL DETAILS SHOWN IN WBCSE DRAWING SETS ARE FOR STRUCTURAL PURPOSES ONLY. THE ARCHITECT AND BUILDER MUST ENSURE ALL CONSTRUCTION REQUIREMENTS SET BY THE BCA/NCC ARE MET. THIS OFFICE SHOULD BE CONTACTED IF ANY CLARIFICATION IS REQUIRED.

STRUCTURAL STEELWORK

- S1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 1250 AND/OR AS4100.
- S2. WELDING SHALL BE PERFORMED BY AN EXPERIENCED OPERATOR IN ACCORDANCE WITH AS 1554
- S3 HIGH STRENGTH BOLTING SHALL BE IN ACCORDANCE WITH AS 1511.
- S4. TWO COPIES OF THE SHOP DETAIL DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEERS AND APPROVAL OF SAME OBTAINED BEFORE COMMENCING FABRICATION. APPROVAL WILL NOT COVER DIMENSIONS OR LAYOUT.
- S5. THE BUILDER SHALL PROVIDE AND LEAVE IN PLACE UNTIL PERMANENT BRACING ELEMENTS ARE CONSTRUCTED SUCH TEMPORARY BRACING AS IS NECESSARY TO STABILIZE THE STRUCTURE DURING ERECTION.
- S6. CAMBER TO STRUCTURAL STEEL ROOF BEAMS, TRUSSES, PORTALS, ETC., TO BE 2mm FOR EVERY 1M OR SPAN UNLESS OTHERWISE NOTED.
- S7. ALL CLEAT AND DRILLING FOR FIXING OF TIMBER MEMBERS, ETC., TO BE PROVIDED BY FABRICATOR.
- S8. EXCEPT WHERE OTHERWISE SHOWN CONNECTIONS SHALL HAVE 6mm CONTINUOUS FILLET WELDS, 2-M16 8.8/S BOLTS IN 1.5mm CLEARANCE HOLES AND 10mm THICK CLEAT PLATE.
- S9. CONCRETE ENCASED STEELWORK SHALL BE WRAPPED WITH SLAB FABRIC, UNLESS OTHERWISE SHOWN.
- S10. STEELWORK SHALL BE THOROUGHLY WIRE BRUSHED AND GIVEN ONE SHOP COAT OF APPROVED PRIMER EXCEPT THAT NONE SHALL BE APPLIED AT CONTACT SURFACES WHERE H.S. BOLTS USED.
- S11. ALL STEEL BEAMS AND LINTELS ARE TO HAVE 100mm MIN. END BEARING UP TO 1.0m & 150mm MIN. END BEARING OVER 1.0m, UNLESS OTHERWISE NOTED.
- S12. STEEL FRAMING MUST BE PROTECTED FROM CORROSION WHERE REQUIRED IN ACCORDANCE WITH BCA 2016 3.4.2.2

CONCRETE

- C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600
- C2. CONCRETE COVER TO ALL REINFORCEMENT (FINISHES NOT INCLUDED).

ELEMENT	FORMED AND SHELTERED	FORMED AND EXPOSED	NO FORM WORK
SLABS AND WALLS	20mm	30mm	65mm
BEAMS	25mm	40mm	65mm
COLUMNS	40mm	50mm	75mm
FOOTINGS		65mm	75mm

- CONCRETE SIZES SHOWN DO NOT INCLUDE FINISH AND MUST NOT BE REDUCED OR HOLED IN ANY WAY WITHOUT THE ENGINEER APPROVAL
- C4. DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS.C5. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE PROPERLY
- FORMED AND LOCATED TO THE APPROVAL OF THE ENGINEER.

 C6. REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION.
- C7. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN. WELDING OF REINFORCEMENT WILL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.
- 8. REINFORCEMENT SYMBOLS:-L LOW DUCTILITY BARS TO AS 4671: 2001 N NORMAL DUCTILITY BARS TO AS 4671: 2001
- N NORMAL DUCTILITY BARS TO AS 4671: 2001
 E SEISMIC (EARTHQUAKE) DUCTILITY BAR TO AS 4671: 2001
 THE NUMBER FOLLOWING THE BAR SYMBOL IS THE NOMINAL BAR
 DIAMETER IN MILLIMETRES.
- CAMBER TO BEAMS AND SLABS SHALL BE 2mm FOR EVERY 1M OF SPAN UNLESS OTHERWISE NOTED.
- C10. ALL CONCRETE SHALL BE GRADE 20MPa 100mm SLUMP (U.N.O.)
- C11. ALL REINFORCEMENT SHALL BE SUPPORTED IN ITS CORRECT POSITION SO AS NOT TO BE DISPLACED DURING CONCRETING ON APPROVED BAR CHAIRS AT 1.0m MAX CRS BOTH WAYS. WHERE REQUIRED PROVIDE SUPPORT BARS N16 AT 1.0M MAX CRS.
- C12. CONCRETE TO BE KEPT FREE OF SUPPORTING BRICKWORK BY TWO LAYERS OF A SUITABLE MEMBRANE (MALTHOID, ETC.), OR AS DIRECTED BY THE ENGINEER. VERTICAL FACES OF CONCRETE TO BE KEPT FREE BY 10mm THICKNESS OF BITUMINOUS CANITE.
- C13. WHERE WALLS ARE NON-LOAD BEARING AT EITHER HORIZONTAL OR VERTICAL FACES THEY SHALL BE SEPARATED FROM CONCRETE OR BRICKWORK BY 10mm THICK CANITE.
- C14. ALL REINFORCEMENT FOR ANY ONE POUR SHALL BE COMPLETELY PLACED AND TIED PRIOR TO INSPECTION BY THE ENGINEER OR ARCHITECT. NO CONCRETE SHALL BE POURED UNTIL REINFORCEMENT HAS BEEN INSPECTED AND APPROVED.
- C15. WHERE SLABS AND BEAMS ARE TO SUPPORT BRICKWORK OVER,
 FORMWORK AND PROPS MUST BE REMOVED BEFORE COMMENCEMENT OF
 BRICKWORK
- C16. TRENCH MESH IN BEAMS TO BE LAID CONTINUOUSLY WITH EACH LAYER BEING LAPPED FOR ITS FULL WIDTH AT INTERSECTIONS AND FOR A MINIMUM OF 500mm AT SPLICES. THE TRENCH MESH SHALL BE OVERLAPPED BY THE WIDTH OF THE FABRIC AT T & L JUNCTIONS.
- C17. AS A GENERAL POLICY, WBCSE DO NOT RECOMMEND THE USE OF POLISHED CONCRETE. THE OWNER SHOULD BE MADE AWARE BY THE BUILDING DESIGNER AND BUILDER THAT CONCRETE IS A NATURAL MATERIAL AND THE POSSIBILITY OF SURFACE CRACK FORMATION MAY OCCUR AND CANNOT BE GUARANTEED EITHER IN THE SHORT OR LONG TERM, WE HIGHLY RECOMMEND CURING THE SLAB USING AN APPROVED CURING SPRAYED MEMBRANE.
- C18. WHEN NEW FOOTING IS ABUTTED TO THE ADJACENT STRUCTURES OF NEIGHBOURING BUILDING AT BOUNDARY, A MINIMUM OF 10mm THICK "ABLEFLEX" (OR APPROVED EQUIVALENT) MUST BE PLACED BETWEEN STRUCTURES (UNLESS OTHERWISE NOTED ON ENGINEERING DRAWINGS TYPICAL)

BRICKWORK

- B1. THE UNCONFINED COMPRESSIVE STRENGTH OF A BRICK UNIT TO BE MIN. OF 15MPa AND COMPRESSIVE STRENGTH OF MASONRY TO BE A MIN. OF 5.4 MPa
- B2. THE MORTAR MIX FOR BRICKWORK SHALL BE 1:1:6
- B3. FOR NON-LOAD BEARING WALLS SEE NOTE C13.
- 34. ARTICULATION (OR EXPANSION) JOINT SPACING MUST BE IN ACCORDANCE WITH AS4773.1 - 2015, AS4773.2 - 2015 & TECHNICAL NOTE 61 (AUG 2008) FOR ARTICULATED WALLING UNLESS NOTED OTHERWISE.
- B5. ALL WALL TIES MUST BE GALVANISED.

STRUCTURAL TIMBER

- T1. ALL TIMBER FRAMING IS TO BE IN ACCORDANCE WITH AS 1684-2010 RESIDENTIAL TIMBER FRAMED CONSTRUCTION.
- T2. ALL TIMBER STRESS GRADES NOMINATED SHALL BE IN ACCORDANCE WITH THE RELEVANT CODES AND MEANS THE STRUCTURAL QUALITY OF A TIMBER SECTION (REFER TO AS 1720).
- T3. TIMBER SHALL BE STORED AND HANDLED SO AS NOT TO BE DETRIMENTAL TO THEIR PERFORMANCE OR DAMAGE THEM. REFER APPENDIX H AS 1684-2:2010
- T4. ALL TIMBER SHALL BE DRY, IE: LESS THAN 15% MOISTURE CONTENT AT THE TIME OF CONSTRUCTION AND SHALL BE PROTECTED AND/OR TREATED AS NOTED.
- T5. ALL TIMBER BEAMS AND LINTELS ARE TO BEAR ON DOUBLE STUDS (ONE JAMB AND ONE BEARING STUD), UNLESS OTHERWISE NOTED.
- T6. BEAMS/STUDS HAVING MORE THAN 1 MEMBER TO BE NAIL LAMINATED TOGETHER. IN ACCORDANCE, WITH AS 1684-2010.
- T7. ALL EXPOSED TIMBER TREATMENT MUST BE IN ACCORDANCE WITH EXPOSURE CLASSIFICATION AS1684.2 TABLE B1, MINIMUM H3 TREATED OR DURABLE SPECIES TO BE ADOPTED TYPICAL U.N.O.

FRAMING

- F1. PROVIDE SOLID BLOCKING (45 WIDE x D-25 DEEP) SECURELY NAILED TO JOISTS/RAFTERS (D=DEPTH OF JOIST/RAFTER) AT 1800 MAX. CRS.
- F2. ALL EXTERNAL OR EXPOSED STEELWORK TO BE HOT DIP GALVANISED.
- 3. WATERPROOFING TO ARCHITECTS DETAILS.
- F4. ALL TIMBER FRAMING & BRACING NOT SHOWN TO COMPLY WITH AS1684 TIMBER FRAMING MANUAL.
- F5. ALL BRICKWORK LINTELS TO ARCHITECTS DETAILS. ALL BRICKWORK LINTELS TO COMPLY WITH F.3.3.3.5 OF B.C.A 2012 VOLUME 2.
- F6. ALL BEAMS/GIRDER & HIP TRUSSES TO BE SUPPORTED ON DOUBLE STUDS EACH END U.N.O.
- F7. ALL LINTELS TO BE SUPPORTED ON SINGLE STUD AND JAMB STUD U.N.O.
- F8. ALL TRUSSES & WALL FRAMES TO MANUFACTURER'S DESIGN & DETAILS.
- TRUSS DIRECTION ASSUMED AS SHOWN (IF APPLICABLE). CONTACT THIS
 OFFICE IF DIFFERENT TRUSS LAYOUT IS USED SO LINTELS ETC CAN BE
 REDESIGNED (IF REQUIRED).
- F10. ALL TIMBER LINTELS TO BE DESIGNED BY THE TRUSS MANUFACTURER.
 TYPICAL U.N.O.
- F11. BUILDER TO SUPPLY MANUFACTURERS TRUSS LAYOUT TO THIS OFFICE FOR APPROVAL PRIOR TO CONSTRUCTION. TRUSS DESIGN MUST BE IN ACCORDANCE WITH AS1720 AND AS1684. TRUSS FABRICATOR/BUILDER IS RESPONSIBLE FOR PROVIDING ADEQUATE ROOF/WALL BRACING TO ENSURE STABILITY OF THE STRUCTURE IN ACCORDANCE TO AS1684.
- F12. ALL INTERNAL WALLS TO BE NON-LOAD BEARING (TYPICAL) UNLESS HATCHED OTHERWISE ON PLANS.

INSPECTIONS

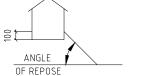
ALL STRUCTURAL WORK MUST BE INSPECTED AND APPROVED IN WRITING PRIOR TO ANY WORK PROCEEDING. 48 HOUR MIN. NOTICE IS REQUIRED FOR ALL INSPECTIONS.

SITE DRAINAGE

- D1. AT THE TIME OF THE PREPARATION OF THIS DOCUMENT, IF THE DRAINAGE DESIGN WAS NOT PREPARED OR CERTIFIED BY THIS OFFICE THEN THE DRAINAGE SYSTEM MAY NEED TO BE DOCUMENTED BY A SUITABLY QUALIFIED PERSON TO COMPLY WITH AS2870-2011. THE DRAINAGE DESIGNER SHOULD ENSURE THAT THE ELEMENTS OF THE DRAINAGE SYSTEM DESIGN ARE CONSIDERED WITH RESPECT TO THE PROPOSED FOOTING SYSTEM.WE RECOMMEND THAT WBCSE OR AN EQUIVALENT CERTIFIED PRACTITIONER, REVIEW ALL THE DOCUMENTATION TO ENSURE COMPLIANCE.
- D2. SITES SHOULD BE DRAINED SO THAT WATER CANNOT POND AGAINST OR NEAR THE HOUSE. THE GROUND IMMEDIATELY ADJACENT TO THE HOUSE SHOULD BE GRADED TO FALL 50mm OVER THE FIRST METRE.WHERE THIS IS IMPRACTICABLE (IE: ON SEVERAL SLOPING SITES) USE A.G. DRAINS ADJACENT TO FOOTINGS WHERE THE GROUND FALLS TOWARDS THE BUILDING.

FOOTING: ANGLE OF REPOSE

- A1. FOOTING MUST NOT UNDERMINE EXISTING FOOTING OR BE UNDERMINED BY PROPOSED EXCAVATION.
- A2. ENSURE ADEQUATE ANGLE OF REPOSE AT ALL TIMES (REFER DETAILS BELOW).
- A3. NOTIFY THIS OFFICE IF FOOTING UNDERMINE OCCURS.
- A4. PIPE DEPTH & LOCATION MUST BE CONFIRMED PRIOR TO CONSTRUCTION.



ANGLE OF REPOSE 30° MAX IN SAND/SILT 45° MAX IN CLAY 60° MAX IN ROCK

OH & SAFETY

- 01. FOR ALL WORKS CONDUCTED ON THIS PROJECT, THE BUILDER SHALL HAVE ALL APPROPRIATE AND SUFFICIENT SAFETY MEASURES AND PROCEDURES IN PLACE.
- 02. DEEP TRENCHES MAY EXIST ON THIS SITE. BUILDER TO ENSURE NECESSARY SAFETY MEASURES ARE TAKEN TO PREVENT FALL AND TRIPPING HAZARDS ARE ELIMINATED.
- O3. FOR LARGE SPAN BEAMS (SAY6000mm), BUILDER TO ENSURE SEAT PLATES/ANGLES TO STEEL COLUMNS FOR MAJOR BEAMS AND LINTELS ARE INSTALLED FOR SAFER CONNECTION, BOLTING AND SITE WELDING.
- 04. ADEQUATE PROPPING MAY BE REQUIRED FOR ANY RETAINING/LOAD BEARING WALLS ON BOUNDARIES. TEMPORARY SHORING MAY BE REQUIRED.
- 05. PROVISIONS SHALL BE MADE FOR APPROPRIATE DISTANCE FOR ROOF BATTENS/RAFTERS TO PROVIDE A SAFE WORKING PLATFORM DURING ROOF INSTALL ATION AND WORKING AT HEIGHTS.
- 06. BUILDER MAY NEED TO BE AWARE OF APPROPRIATE MEASURES TO DEAL WITH HAZARDOUS MATERIALS SUCH AS ASBESTOS THAT MAY BE FOUND IN SERVICE PITS.
- 07. IF A CRANE IS REQUIRED, THE BUILDER IS TO PROVIDE ADEQUATE SAFETY MEASURES FOR CRANE USAGE AROUND POWER LINES.
- 08. IF ANY DIGGING IS REQUIRED OUTSIDE OF SITE BOUNDARIES, INFORMATION REGARDING EXISTING COUNCIL ASSETS NEED TO BE SOUGHT FROM "DIAL BEFORE YOU DIG".
- 09. THE SAFETY CONCERNS AND HAZARDS IDENTIFIED ABOVE REPRESENT COMMONLY OCCURRING RISKS. THE LIST DOES NOT COVER THE FULL RANGE OF RISK AVOIDANCE MEASURES REQUIRED.

DOWNPIPE & GUTTER NOTES:

THEY ARE TO BE IN ACCORDANCE WITH NCC PART 3.5.2, AS 3500.3 AND AS 3500.5. A DOWNPIPE MUST NOT SERVE MORE THAN 12m OF GUTTER LENGTH AND BE LOCATED WITHIN 1.2m FROM A VALLEY. WHERE DOWNPIPES ARE LOCATED GREATER THAN 1.2m FROM A VALLEY, PROVISION FOR OVERFLOW MUST BE MADE TO THE GUTTER. EAVE GUTTERS ARE TO BE PROVIDED WITH OVERFLOW PROVISIONS ALONG THE LENGTH OF THE GUTTERING IN ACCORDANCE WITH AS 3500.3

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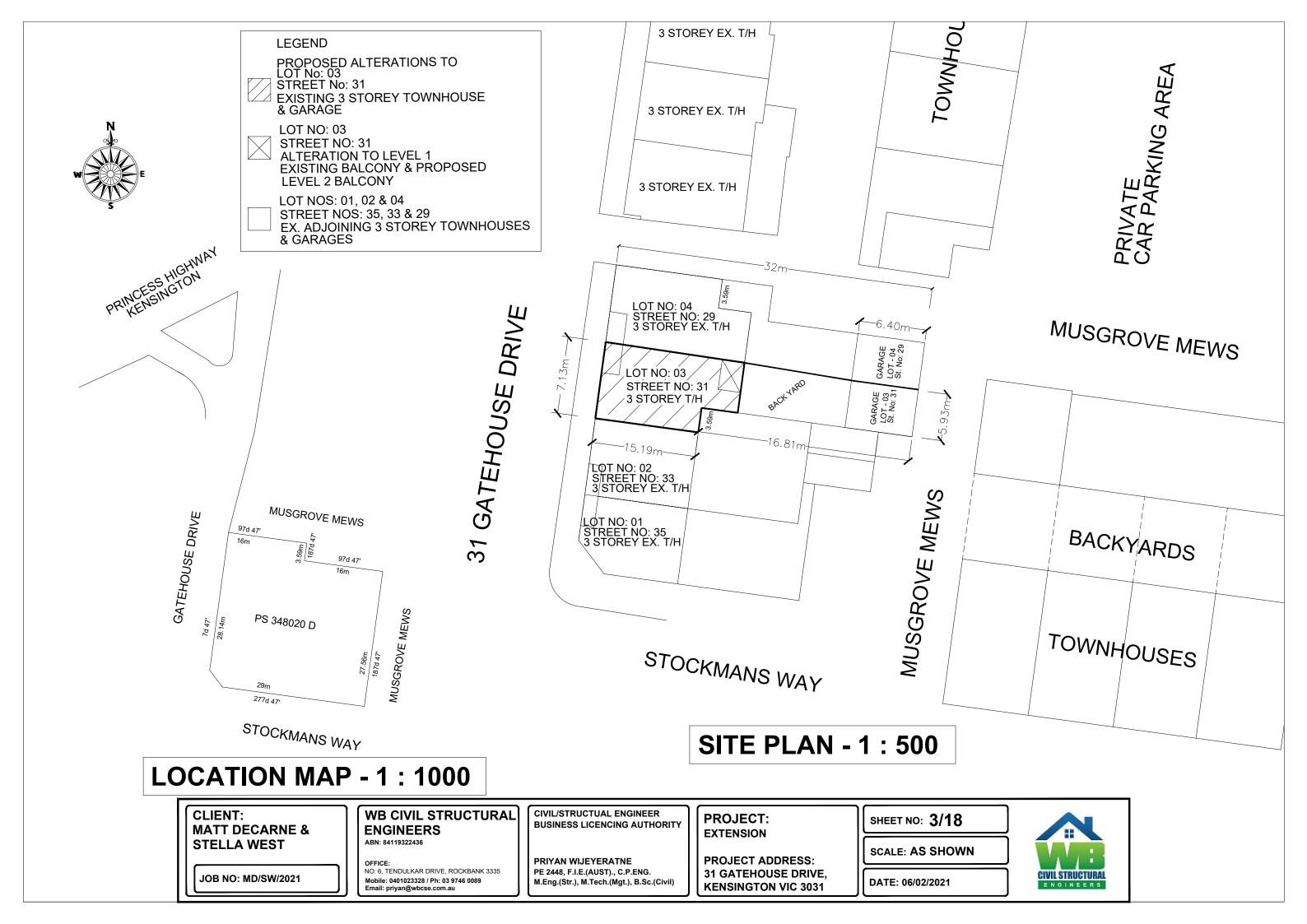
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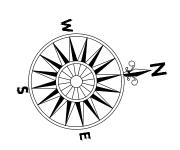
PROJECT: EXTENSION

PROJECT ADDRESS: 31 GATEHOUSE DRIVE, KENSINGTON VIC 3031 SHEET NO: 2/18

SCALE: AS SHOWN







NOTATIONS USED

EX. - EXISTING

EXT. EXTERNAL

NO. - NUMBER

WR - WARDROBE

SA - SMOKE ALARM

GL - GROUND LEVEL

S/D/B/WALL - SOLID DOUBLE BRICK WALL

BV - BRICK VENEER

LDRY - LAUNDRY

W/WIN - WINDOW

D - DOOR

RL - REDUCED LEVEL

DP - DOWN PIPE

LPD - LEGAL POINT OF DISCHARGE

F17 - TIMBER STRESS GRADE

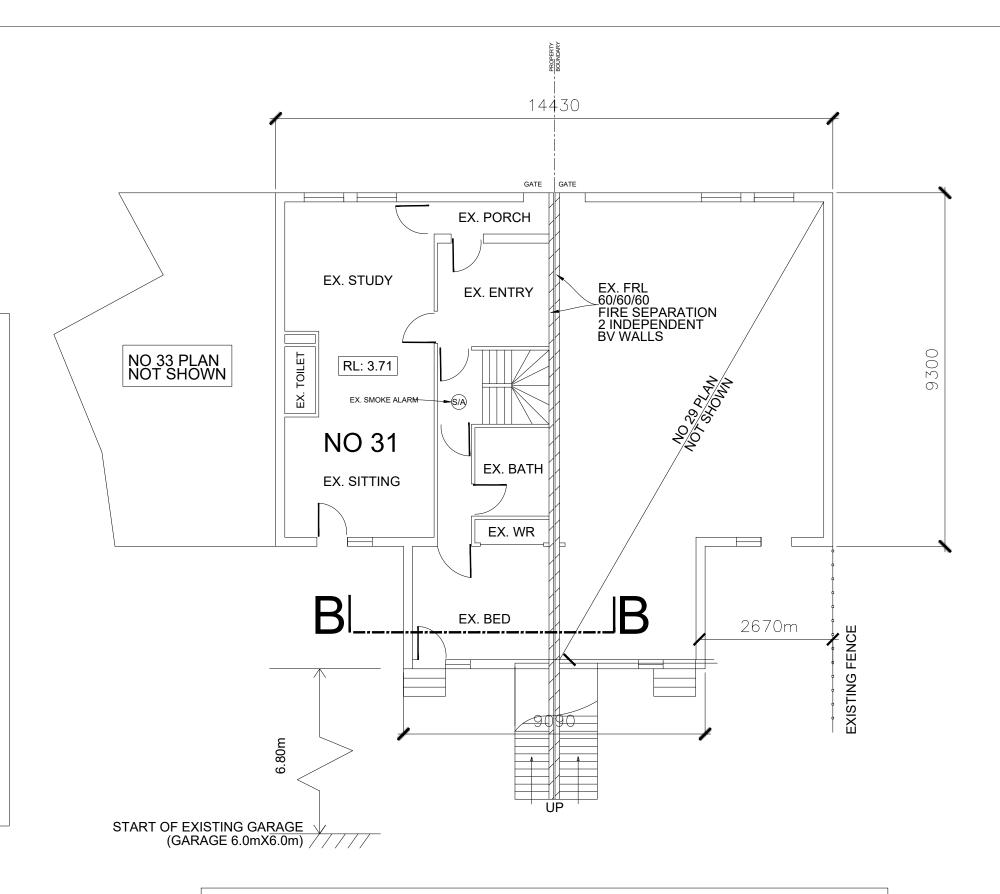
NCC - NATIONAL CONSTRUCTION CODE

C/C - CENTRE TO CENTRE

sq.m. - SQUARE METER

m - METERS

mm - MILLIMETERS



GROUND LEVEL - EXISTING PLAN - 1: 100

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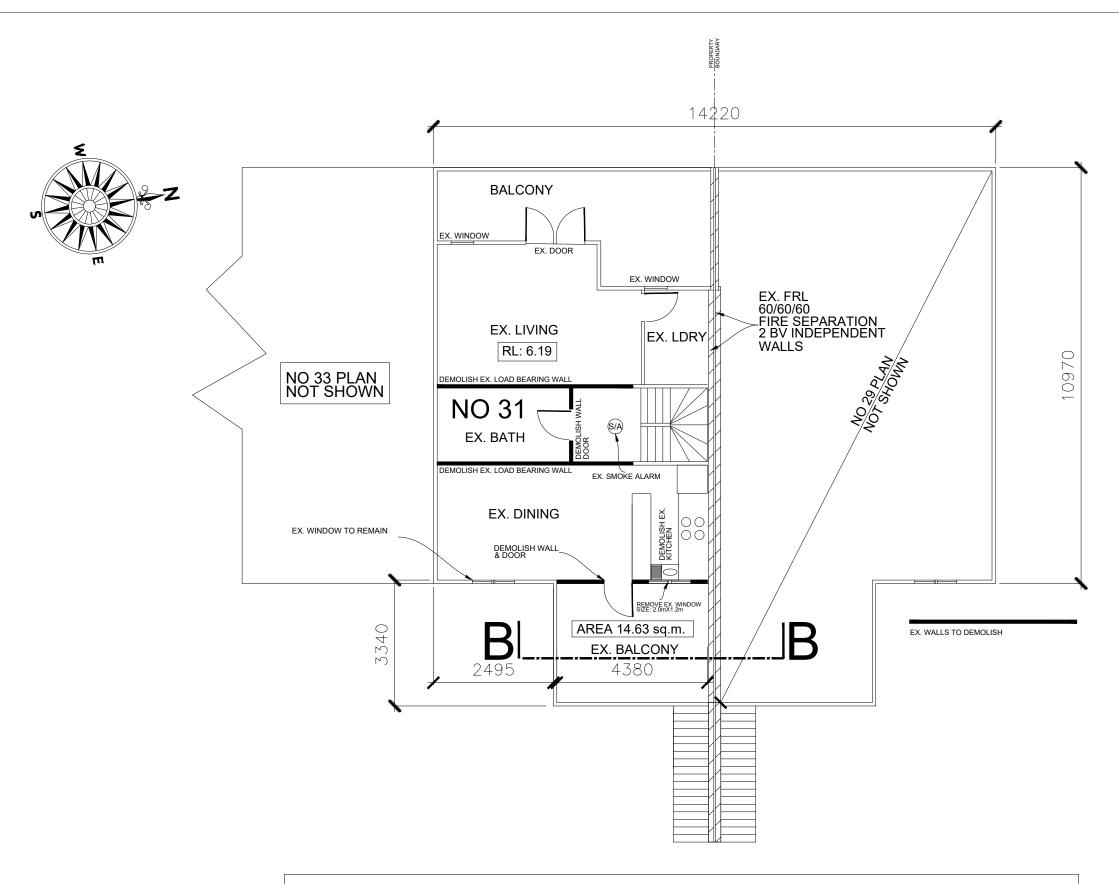
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PE 2448, F.I.E.(AUST)., C.P.ENG.
M.Eng.(Str.), M.Tech.(Mgt.), B.Sc.(Civil)

PROJECT: EXTENSION

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SCALE: AS SHOWN





LEVEL 1 - EXISTING & DEMOLITION PLAN - 1 : 100

CLIENT: MATT DECARNE & STELLA WEST

JOB NO: MD/SW/2021

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CIVIL/STRUCTUAL ENGINEER **BUSINESS LICENCING AUTHORITY**

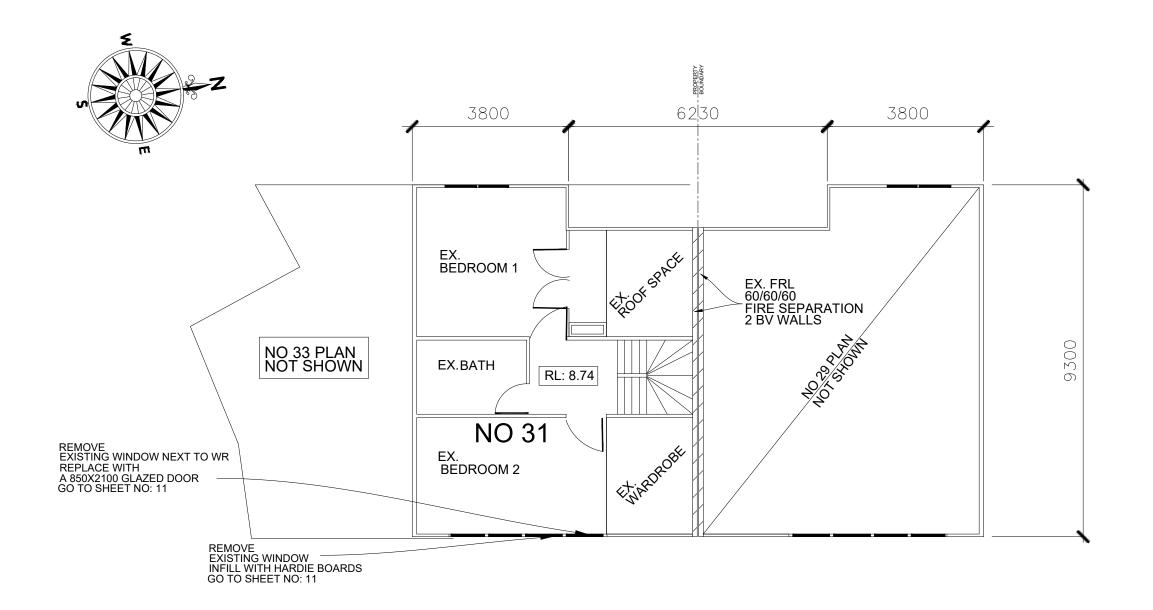
PRIYAN WIJEYERATNE PE 2448, F.I.E.(AUST)., C.P.ENG. M.Eng.(Str.), M.Tech.(Mgt.), B.Sc.(Civil) PROJECT: **EXTENSION**

PROJECT ADDRESS: 31 GATEHOUSE DRIVE, **KENSINGTON VIC 3031**

SHEET NO: 5/18

SCALE: AS SHOWN





LEVEL 2 - EXISTING & DEMOLITION PLAN - 1:100

CLIENT: MATT DECARNE & STELLA WEST

JOB NO: MD/SW/2021

WB CIVIL STRUCTURAL ENGINEERS

ABN: 84119322436

NO: 6, TENDULKAR DRIVE, ROCKBANK 3335 Mobile: 0401023328 / Ph: 03 9746 0089 Email: priyan@wbcse.com.au

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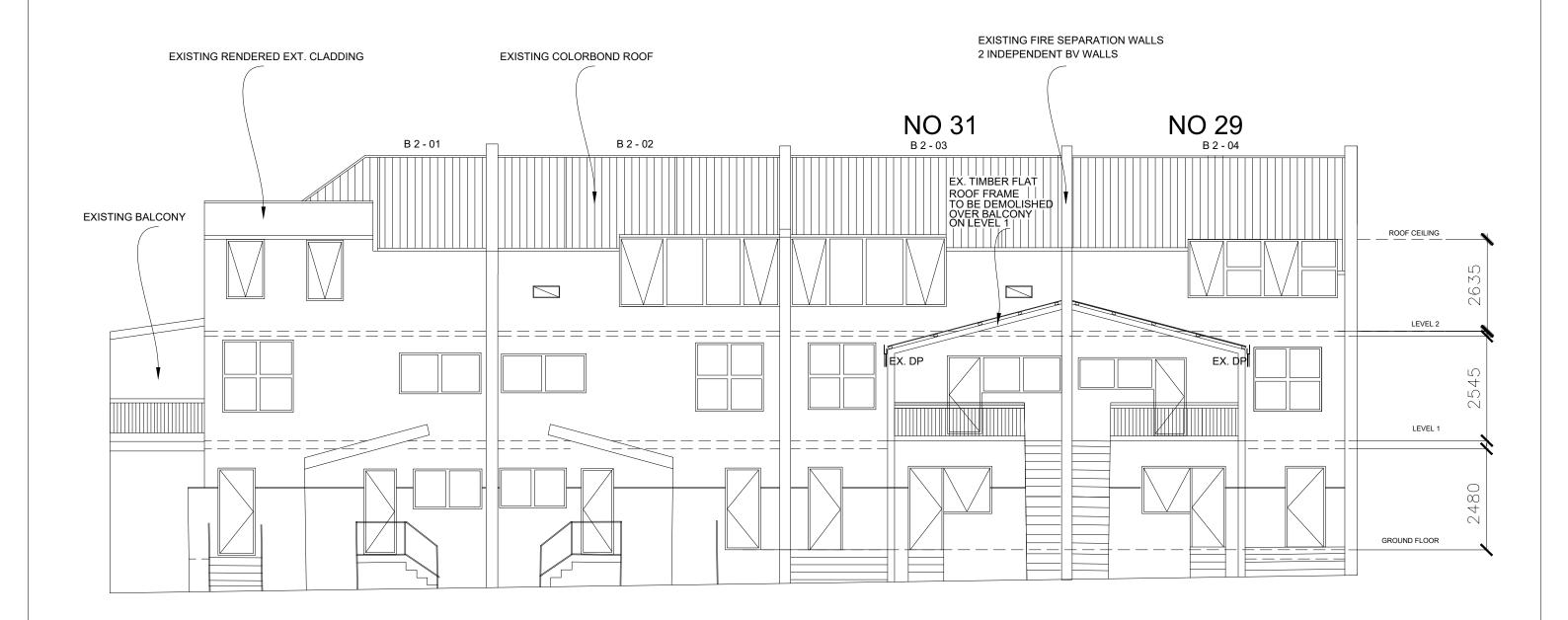
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PROJECT ADDRESS: 31 GATEHOUSE DRIVE, **KENSINGTON VIC 3031**

SHEET NO: 6/18

SCALE: AS SHOWN





EXISTING EAST ELEVATION - 1: 100



JOB NO: MD/SW/2021

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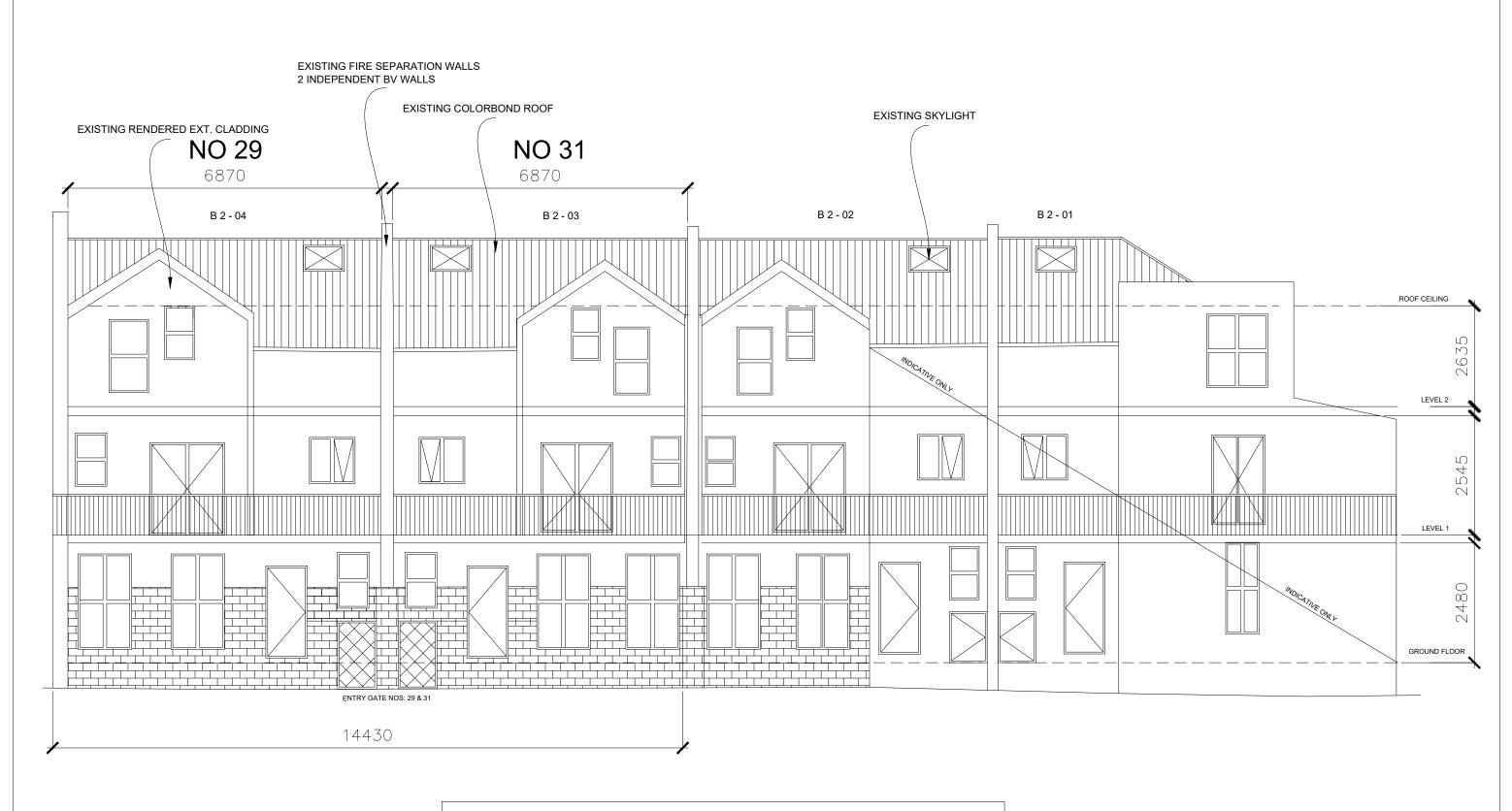
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PROJECT ADDRESS: 31 GATEHOUSE DRIVE, **KENSINGTON VIC 3031**

SHEET NO: **7/18**

SCALE: AS SHOWN





EXISTING WEST ELEVATION - 1:100

CLIENT: MATT DECARNE & **STELLA WEST**

JOB NO: MD/SW/2021

WB CIVIL STRUCTURAL ENGINEERS

ABN: 84119322436

NO: 6, TENDULKAR DRIVE, ROCKBANK 3335 Mobile: 0401023328 / Ph: 03 9746 0089 Email: priyan@wbcse.com.au

CIVIL/STRUCTUAL ENGINEER **BUSINESS LICENCING AUTHORITY**

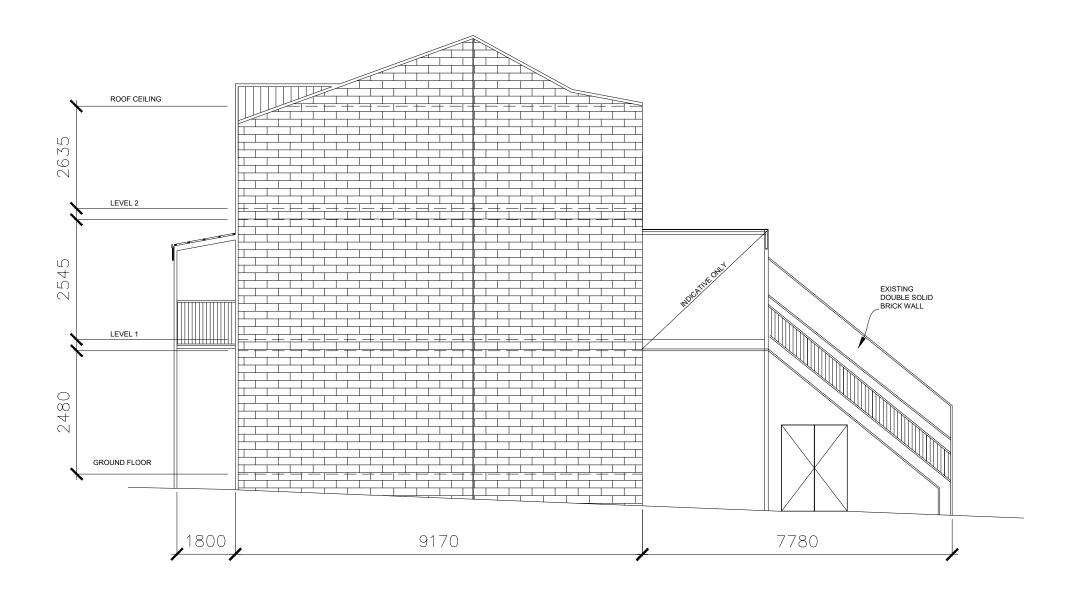
PRIYAN WIJEYERATNE PE 2448, F.I.E.(AUST)., C.P.ENG. M.Eng.(Str.), M.Tech.(Mgt.), B.Sc.(Civil) PROJECT: **EXTENSION**

PROJECT ADDRESS: 31 GATEHOUSE DRIVE, **KENSINGTON VIC 3031**

SHEET NO: 8/18

SCALE: AS SHOWN





EXISTING SOUTH ELEVATION - 1:100

CLIENT: MATT DECARNE & STELLA WEST

JOB NO: MD/SW/2021

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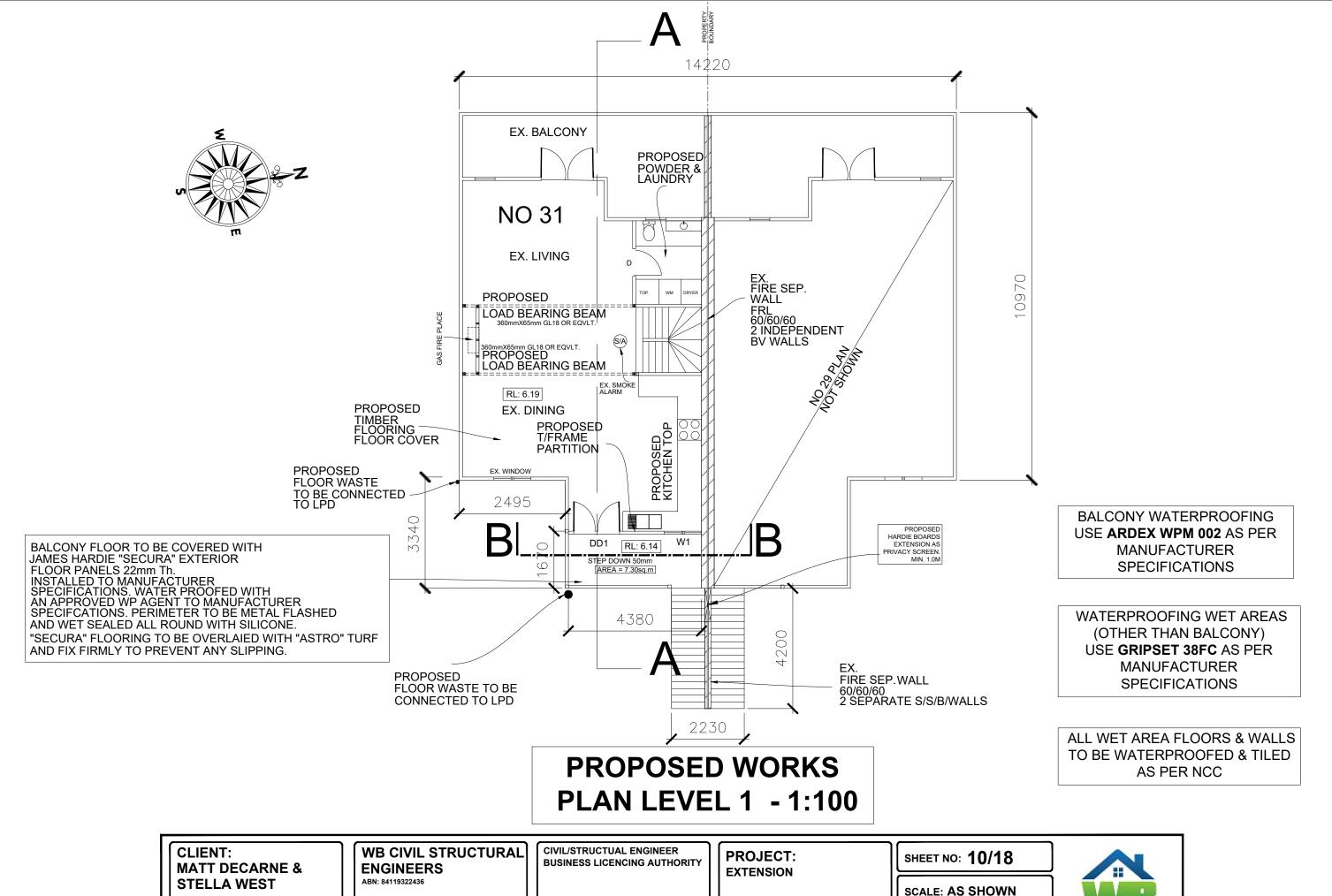
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PE 2448, F.I.E.(AUST)., C.P.ENG.
M.Eng.(Str.), M.Tech.(Mgt.), B.Sc.(Civil)

PROJECT: EXTENSION

PROJECT ADDRESS: 31 GATEHOUSE DRIVE, KENSINGTON VIC 3031 SHEET NO: 9/18

SCALE: AS SHOWN





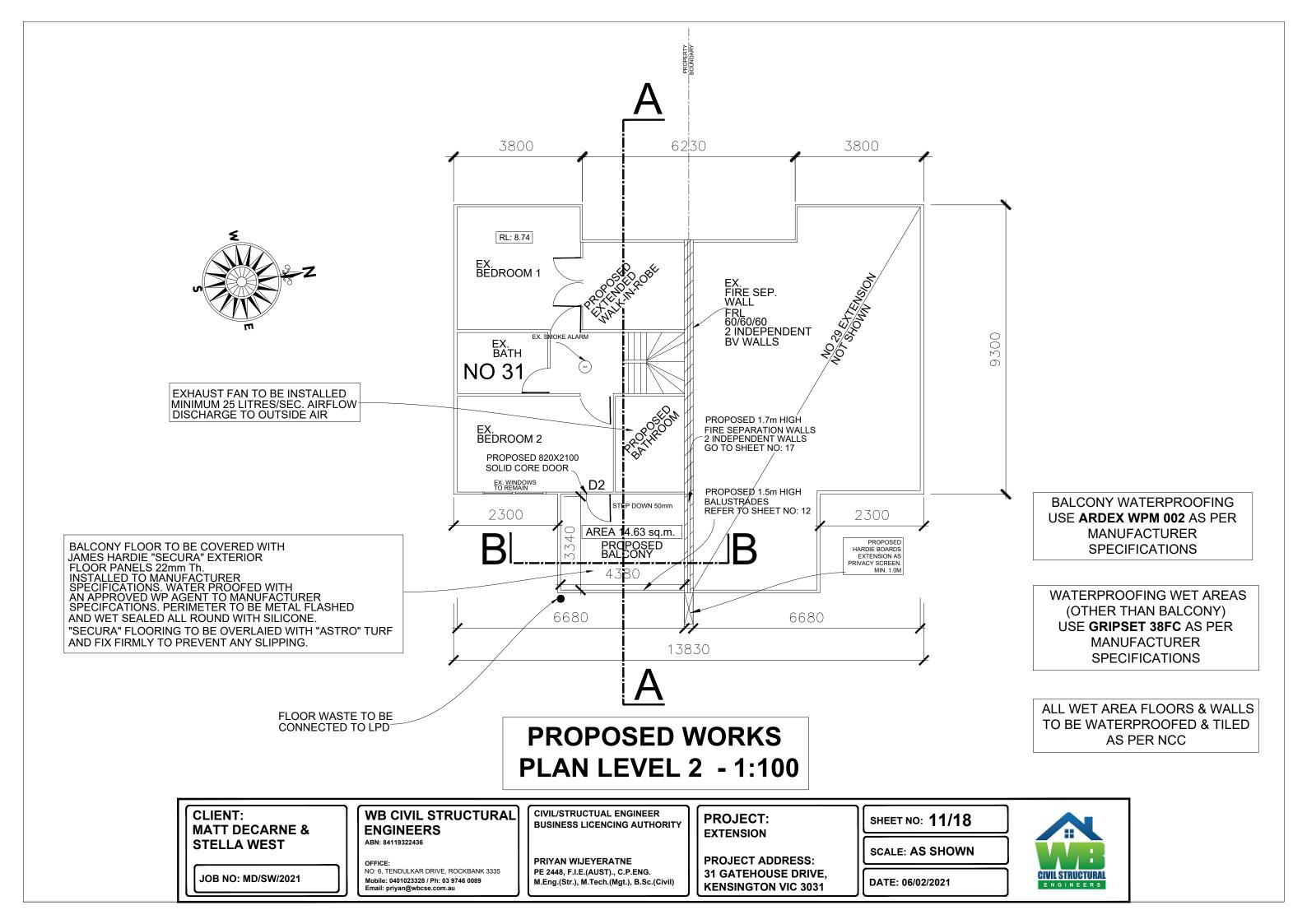
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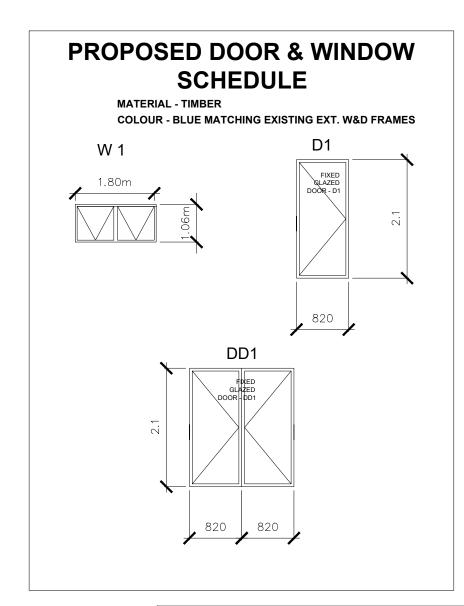
PROJECT ADDRESS: 31 GATEHOUSE DRIVE, **KENSINGTON VIC 3031**



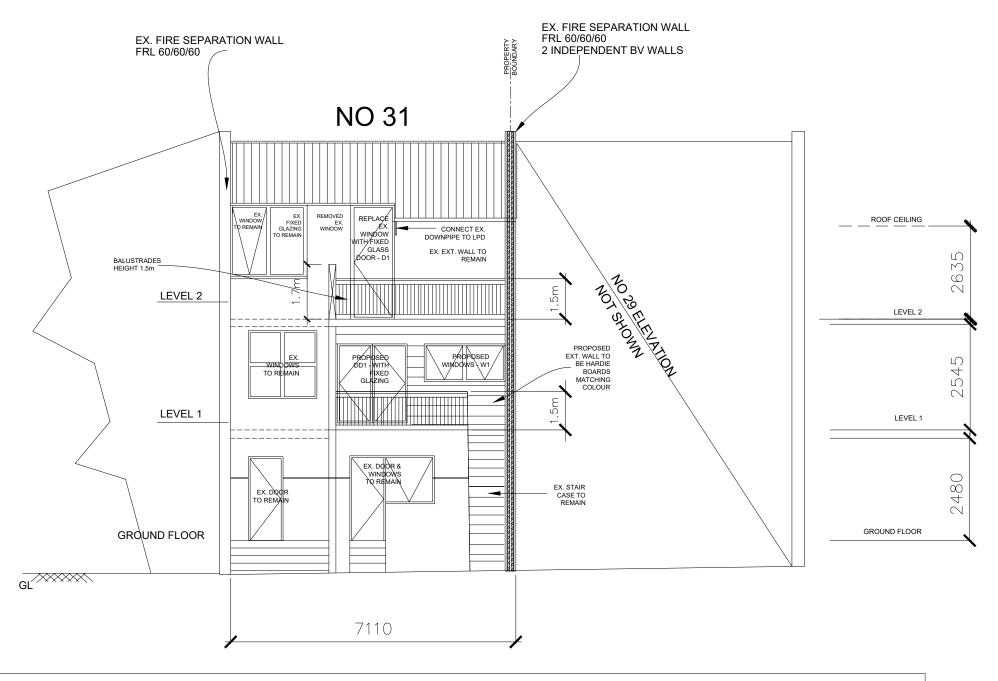


NOTE:

- 1. USE F17 STRUCTURAL TIMBER FOR PROPOSED WORKS.
- FIRE SEPARATION WITH BORAL 16mm THICK WET AREA FIRESTOP. EXTERNAL SHEETING TO HAVE MATCHING COLOR TO EXISTING CLADDING.
- 3. ALL NEW CLADDING TO BE MATCH EXISTING EXTERNAL. COLORS AND USE HARDIEBOARD OR EQUIVALENT.
- 4. FOLLOW MANUFACTURERS SPECIFICATIONS.
- 5. NEW COLORBOND METAL BALCONY BALUSTRADES TO COMPLY WITH NCC 2019 & RELEVANT AUSTRALIAN STANDARDS
- 6. ALL PROPOSED WORKS TO COMPLY WITH NCC 2019.



EQUIVALENT STRESS GRADE TIMBERS MAY BE USED.



EAST ELEVATION - SHOWING PROPOSED WORKS - 1:100

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Mobile: 0401023328 / Ph: 03 9746 0089
Email: priyan@wbcse.com.au

CIVIL/STRUCTUAL ENGINEER
BUSINESS LICENCING AUTHORITY

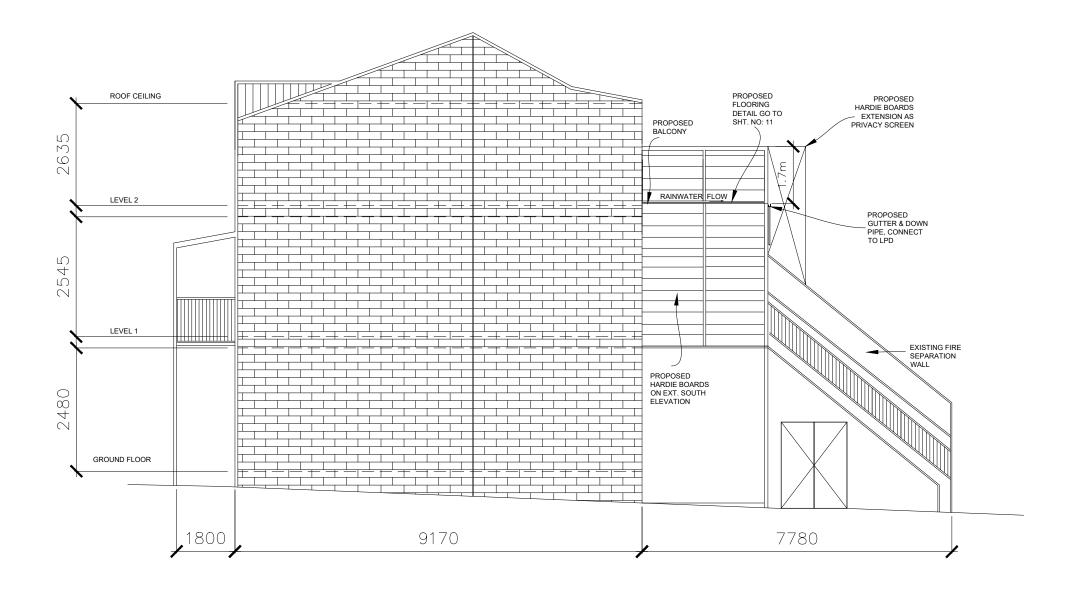
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PE 2448, F.I.E.(AUST)., C.P.ENG.
M.Eng.(Str.), M.Tech.(Mgt.), B.Sc.(Civil)

PROJECT: EXTENSION

PROJECT ADDRESS: 31 GATEHOUSE DRIVE, KENSINGTON VIC 3031 SHEET NO: 12/18

SCALE: AS SHOWN





PROPOSED SOUTH ELEVATION - 1:100

CLIENT: MATT DECARNE & STELLA WEST

JOB NO: MD/SW/2021

WB CIVIL STRUCTURAL ENGINEERS

ABN: 84119322436

NO: 6, TENDULKAR DRIVE, ROCKBANK 3335 Mobile: 0401023328 / Ph: 03 9746 0089 Email: priyan@wbcse.com.au

CIVIL/STRUCTUAL ENGINEER **BUSINESS LICENCING AUTHORITY**

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SHEET NO: 13/18

SCALE: AS SHOWN



FRAMING SPECIFICATIONS COMPY WITH AS1684

STUDS 90X45 MGP @ 450 C/C DOUBLE STUDS @ OPENINGS

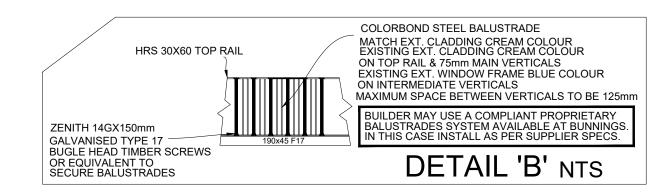
WALL PLATES
TOP & BOTTOM
1 - 35X90 NOT TRENCHED

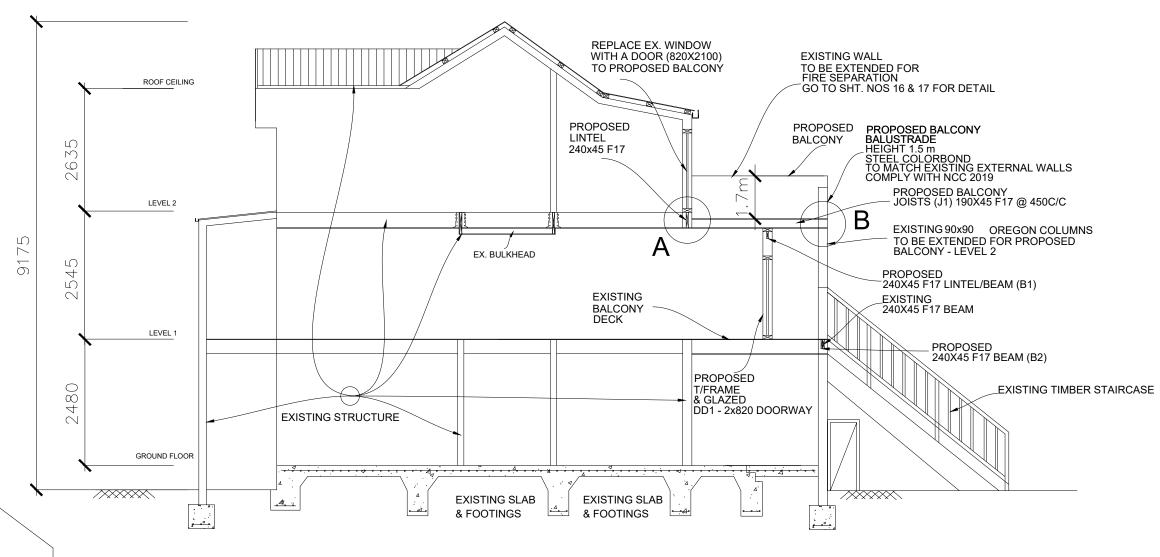
BRACING & FIXING FOLLOW AS1684.2 STANDARD DETAIL

LOAD BEARING COLUMNS OREGON 90X90

BALCONY FLOOR - W/P
USE JH "SECURA" EXTERIOR
FLOOR PANELS OR
EQUIVALENT WATER
PROOFED FLOORING SYSTEM.
INSTALLATION AS PER
MANUFACTURER
SPECIFICATIONS

EQUIVALENT STRESS
GRADE TIMBERS MAY BE
USED.





EXISTING
TIMBER FRAME
PROPOSED
LBEAM / INTEL
240x45 F17 (B2)

BALCONY FLOOR BOARD
MULTIPANEL OR EQUIVALENT
INSTALL AS PER MANUFACTURER'S
SPECIFICATIONS

190x45 F17 BALCONY JOISTS (J1) @ 300 C/C
ENSURE GRADE TOWARDS
PROPOSED GUTTER

PRYDA OR SIMILAR
BALCONY JOISTS BRACKETS
TO MANUFACTURER'S SPECIFICATIONS

DETAIL 'A' NTS

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ABN: 84119322436

OFFICE: NO: 6, TEN

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BUSINESS LICENCING AUTHORITY

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M.Eng.(Str.), M.Tech.(Mgt.), B.Sc.(Civil)

PROJECT: EXTENSION

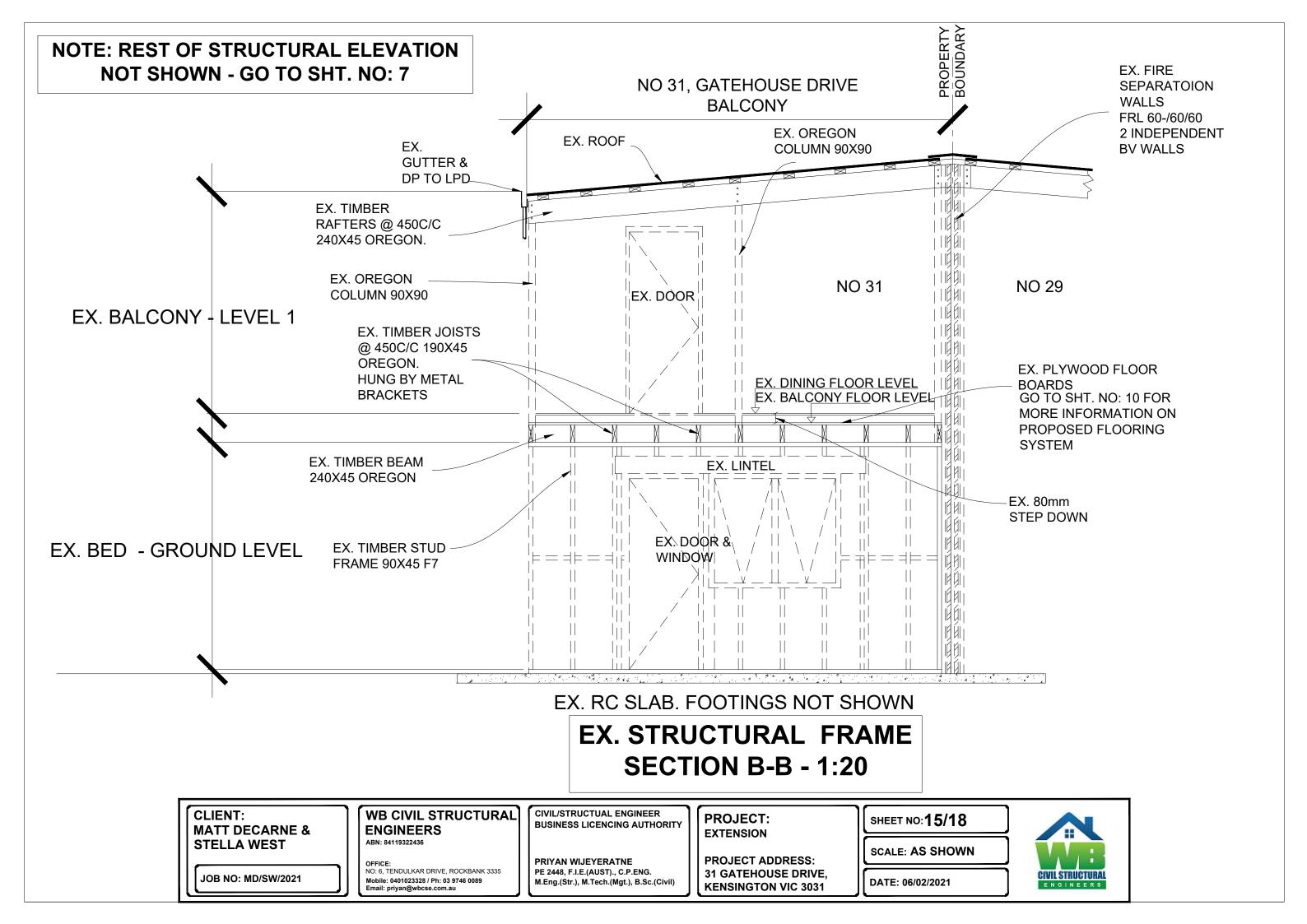
PROPOSED WORKS

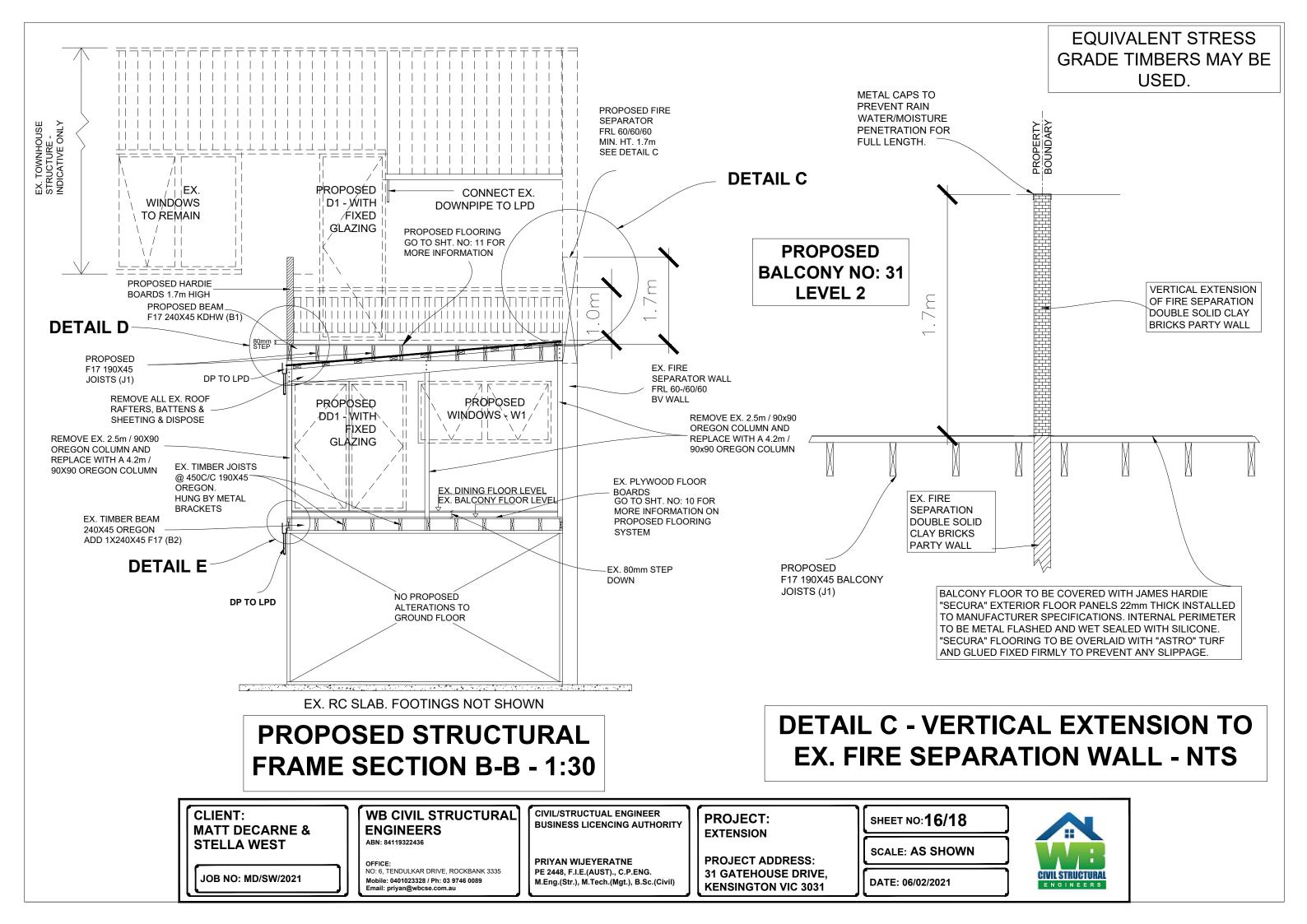
SECTION A - A - 1:100

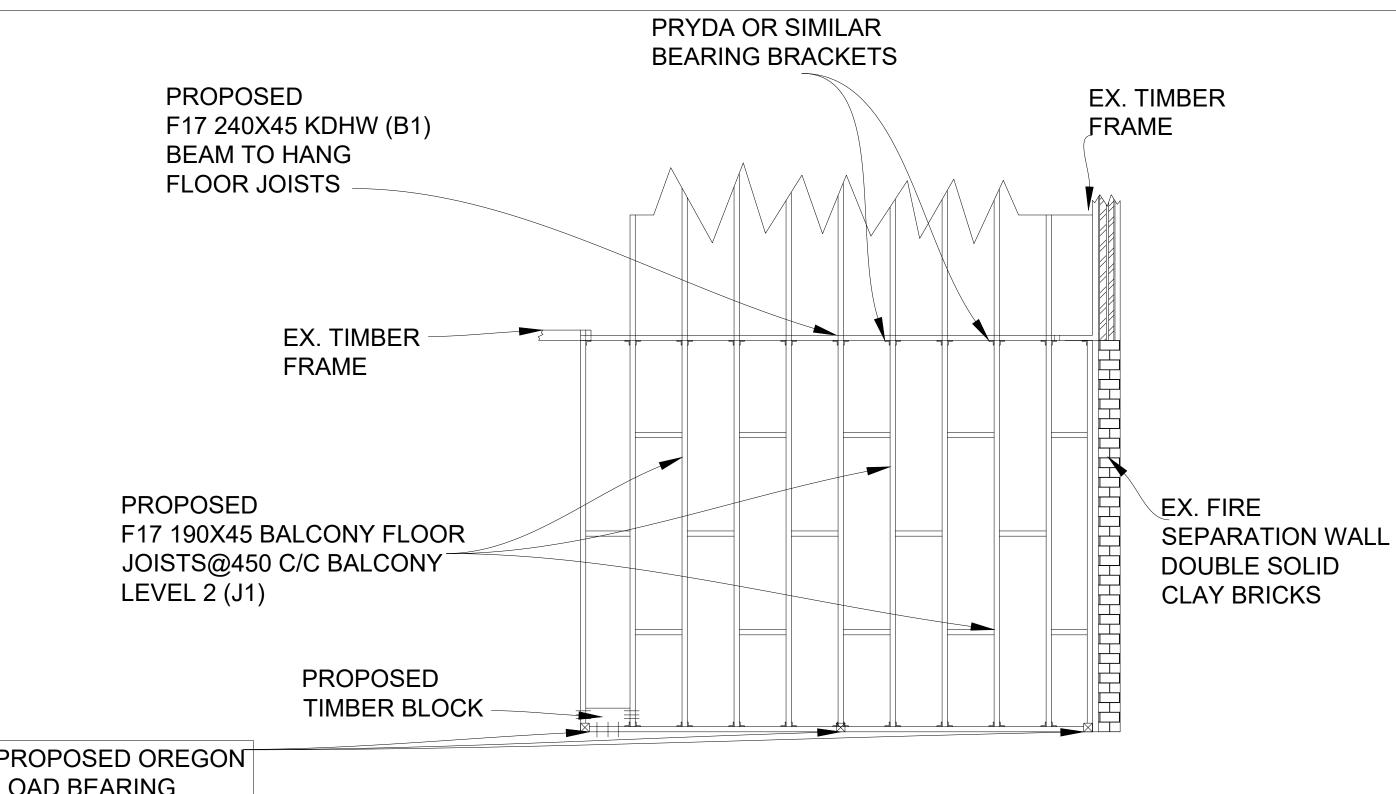
PROJECT ADDRESS: 31 GATEHOUSE DRIVE, KENSINGTON VIC 3031 SHEET NO: 14/18

SCALE: AS SHOWN









PROPOSED OREGON LOAD BEARING COLUMNS 90x90

PROPOSED STRUCTURAL WORKS **PLAN - BALCONY LEVEL 2 - NTS**

EQUIVALENT STRESS GRADE TIMBERS MAY BE USED.

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NO: 6, TENDULKAR DRIVE, ROCKBANK 3335 Mobile: 0401023328 / Ph: 03 9746 0089

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SHEET NO: 17/18

SCALE: AS SHOWN



ENERGY EFFICIENCY

The following to be installed to the <u>new habitable</u> parts of the building in accordance with Deemed to Satisfied (DtS) provisions of BCA Vol 2, 2019, Part 3.12 of

Building element	BCA clause	Total R value	Installation
Roof	3.12.1.2	R 4.1	R3.5 insulation batts Required
External walls	3.12.1.4	R 2.8	R2.5 insulation batts + Reflective Foil Insulation
			Required
Floors	3.12.1.5	R 1.25	R1.0 insulation batts Required

WINDOWS, GLAZING

FRAMES: MTM Aluminium Windows

GLAZING:

Awning & Fixed

SINGLE Glazed U Value=6.56, SHGC=0.66

Aluminium Sliding

SINGLE Glazed U Value=6.53, SHGC=0.73

Doors

Glazed U Value=6.31, SHGC=0.72

U Value to be equal or less & SHGC can be within 5%

AIR LEAKAGE

- Exhaust fans to be sealed.
- Windows and sliding doors are fitted with weather seals.
- External doors to be weather stripped.
- Gaps & Cracks around doors, windows and service penetrations are sealed.

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Email: privan@wbcss.com av.

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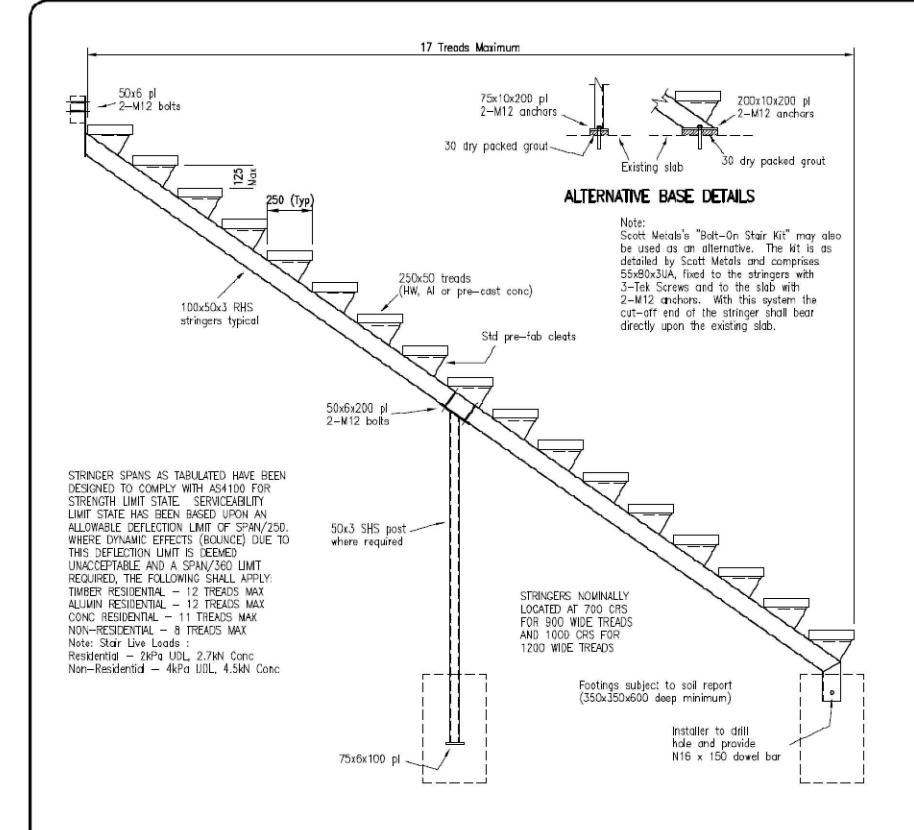
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PROJECT: EXTENSION

PROJECT ADDRESS: 31 GATEHOUSE DRIVE, KENSINGTON VIC 3031 SHEET NO: 18/18

SCALE: AS SHOWN





STEELWORK

1. All steelwork shall be executed in accordance with the current edition of:

AS 4100 - SAA Steel Structures Code

AS 4600 - SAA Cold Formed Steel Structures Code

AS 1554 - SAA Code for Welding in Building

- The steelwork Sub-Contractor's shop drawings should to be submitted to the Engineer for approval prior to commencement of fabrication.
- 3. Unless otherwise noted the size of fillet welds shall to be 6mm.
- 4. Where noted on the drawings:

fw = filet weld

cfw - continuous fillet weld

bw = butt weld

fpbw - full penetration butt weld

- Steelwork shall be thoroughly cleaned and coated with one coat of Zinc Phosphate paint (or treated as specified) before erection. Steelwork to be encased in concrete shall not be painted.
- Where encased, steelwork shall be wrapped with 3.25 mm (10 gauge) black wire at 100 mm pitch with 50 mm cover.
- 7. Where noted on the drawings:

M12 = Commercial Bolts, Strength Grade 4.6, 'Snug Tight' M16 HS = High Strength Structural Bolts, Strength Grade 8.8, 'Snug Tight' M20 HSFG = High Strength Friction Grip Bolts, Strength Grade 8.8, either Friction Type Joint (TF) or Bearing Type Joint (TB) as specified, both types fully tensioned to the requirements of AS 1511.

20 = No. of mm in bolt diameter

All botted connections shall include a washer of similar stress grade to the balt and nut. Bolt threads shall not extend across the shear plane.

 Where hollow sections of same external size, and with differing wall thickness are specified, the wall thickness shall be clearly marked on the section during fabrication for identification by the builder on site.

Stringers 100x50x3 RHS (UNO)		Number of Treads					
Stair Tread Type x Width	11	12	13	14	15	16	17
Timber Res x 900 W	1	1	J	1	1	1	5
Timber Res x 1200 W	1	1	J	1	1	5	5
Aluminium Res x 1200 W	1	1	J	1	1	4	5
Concrete Res x 900 W	1	1	J	1	4	X	х
Cancrete Res x 1200 W	1	1	1	4	X	X	X
Timber Non-Res x 900 W	1	1	1	4	X	Х	Х
Timber Non-Res x 1200 W	1	1	4	5	х	X	X
Aluminium Non-Res x 1200 W	1	1	4	5	х	х	Х
Cancrete Non-Res x 900 W	1	1	4	X	X	X	X
Concrete Non-Res x 1200 W	1	4	5	X	X	X	X

- X Not suitable for clear span, use 100x50x3 RHS with support post at or about mid-span
- 100x50x4 RHS required for clear span or 100x50x3 RHS with post at or about mid-span
- 5 100x50x5 RHS required for clear span or 100x50x3 RHS with post at or about mid-span At or about mid-span means not more than 11 treads clear span All stringers shall consist on one continuous length, regardless of internal support

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R.P.E.Q. 1134

If in doubt ask - DO NOT SCALE!

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PROJECT: EXTENSION

PROJECT ADDRESS: 31 GATEHOUSE DRIVE, KENSINGTON VIC 3031 SHEET NO: PAGE 19

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